

## Content Models: Will IPTV Be More of the Same, or Different?

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Will the content of Internet protocol television (IPTV) be different from that provided by the traditional video delivery systems of broadcast television, video recordings, cable television, and satellite television? How are the new IPTV businesses structured? What new forms of intermediation are replacing older forms in this market? Are things moving away from a mass audience model for high-end television toward a more niche-oriented approach? These are some questions that are addressed in this chapter. Before directly tackling these issues, however, some background information about where things stand in this highly dynamic market is offered. Remarks are limited almost entirely to events occurring in the United States, even though there is some significant activity in other countries.

### THE SPREAD OF BROADBAND ACCESS

Many businesses and educational institutions already have high-speed Internet access via the purchase or leasing of T-1/T-3 lines or faster optical fiber networks. Typically, the individual user on a business network is connected via an ethernet connection (10–100 Mbps) to the enterprise network that is itself connected at a higher rate of transfer. Home and small business users are increasingly getting comparable access via digital sub-

scriber line (DSL) and cable modem connections. In 1999, according to Forrester Research, approximately 2.6 million households with personal computers (PCs) in the United States possessed a broadband connection out of the 44.8 million households with Internet access. The same organization projected a growth in broadband PC access to 37.5 million households by 2004 out of a total 80 million households online (Schwartz with Bernoff & Dorsey, 1998).

Cable modems have been marketed faster and in more areas than DSL connections. The cable operators have been more aggressive than the telephone companies in marketing cable modem services. Nevertheless, it is projected that the number of DSL households will soon exceed the number of cable modem households as the number of subscribers to both types of access continues to increase rapidly.

An additional 2.8 million households had access to broadband digital video via digital set-top boxes (STBs) in 1999. STBs give users access only to one-way broadband; return information is usually sent via conventional modems on telephone lines. Nevertheless, these services have been appealing enough that over one million WebTV units were sold as of October 2000. More capable STBs, such as the UltimateTV system, soon to be released by Microsoft in collaboration with DirecTV and Thomson/RCA, may have greater appeal to consumers than Web TV because they marry interactive Internet access with TiVO-like digital recording capabilities for households (Healey, 2000).

A competitor to UltimateTV will be the TV service developed by AOL Time Warner called AOLTV. AOLTV is a STB system offering an electronic programming guide (EPG), together with Internet access via America Online, for television owners. The AOLTV box is less expensive than the UltimateTV box, but by the same token offers fewer services and features.

There will be many offerings other than UltimateTV and AOLTV as the market for digital television develops in the United States. As in Europe, U.S. digital video service providers will have an incentive to create proprietary systems both to prevent nonsubscribers from accessing their systems, but also to increase switching costs from one digital service to another.

It should be added that DVD delivery of movies is another form of digital video, and the availability of DVD content together with the low cost of DVD players is priming the market for future demand for high-quality digital video content. The digital video content that is now being delivered via the Internet is constrained by the relatively small audiences that exist due to the limited deployment of broadband services to households. Bandwidth constraints and the differential speeds of PCs means that most households will only be able to view short video clips with limited pixel counts. That constraint will be greatly reduced in the not too distant future as the national DSL and cable modem networks expand.

## STREAMING MEDIA TECHNOLOGIES

The great majority of IPTV businesses use a similar set of streaming video technologies. Three firms have set market standards for streaming video: RealNetworks (Real Player), Apple (QuickTime), and Microsoft (Windows Media Player).

RealNetworks currently dominates the streaming media business. The market for streaming media services is estimated to be around \$900 million. About 85% of all streaming media content on the Internet is available in formats compatible with Real Player. There are currently 155 million registered users of Real Player. The growth in the sales of RealNetworks has been over 100% per year and the company is actually earning a profit. For the year ending December 31, 1999, the company reported revenues of \$131 million and a net income of \$8.3 million.<sup>1</sup> RealNetworks has cultivated its own network of providers of Real Player compatible audio and video and has created a service called Take5 that provides quick access to the latest video content.

Over 100 million copies of Apple's QuickTime 4.0 media player have been downloaded as of October 2000.<sup>2</sup> Apple has created its own network of QuickTime video providers called QTV that is accessible on its Web site.<sup>3</sup>

Fewer copies of Microsoft's Windows Media Player have been downloaded than either Real Player or QuickTime, but most observers consider Microsoft to be a major contender in the race for future streaming media dollars and eyeballs. Microsoft has used aggressive tactics to win market share away from RealNetworks. In 1997, Microsoft purchased 10% of the equity of RealNetworks. In 1998, Rob Glaser, the CEO of RealNetworks, testified before the Senate Judiciary Committee that Microsoft's Windows Media Player had a feature that effectively disabled any version of Real Player on a user's PC without asking the user's permission. A little later, Microsoft purchased a competitor of RealNetworks named Vxtreme and then announced the sale of its equity in RealNetworks, thus producing a large drop in the latter's share price. As a result of these tactics, RealNetworks joined the coalition of companies supporting the antitrust suit filed by the Department of Justice against Microsoft.

Most major sites offer users the option to select which player they want to use at what connection speed so that they can optimize the quality of

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<sup>1</sup>[http://www.realnetworks.com/company/index.html?src=001101realhome\\_1,rnhmpg\\_102300,rnhmtn](http://www.realnetworks.com/company/index.html?src=001101realhome_1,rnhmpg_102300,rnhmtn); [http://www.realnetworks.com/company/pressroom/pr/2000/q499results.html?src=001101realhome\\_1,rnhmpg\\_102300,rnhmtn,nosrc](http://www.realnetworks.com/company/pressroom/pr/2000/q499results.html?src=001101realhome_1,rnhmpg_102300,rnhmtn,nosrc); Amy Kover, "Is Rob Glaser for Real," *Fortune*, September 4, 2000, p. 216.

<sup>2</sup><http://www.apple.com/pr/library/2000/oct/10qtmomentum.html>

<sup>3</sup><http://www.apple.com/quicktime/qtv/>

video they see on their desktops. Thus, it is not necessarily the case that there will be one dominant firm in the market for streaming video services. It is likely, however, that the competition will be limited by the desire of consumers to minimize the costs connected with the coexistence of multiple market standards. Also, there still seems to be quite a bit of variance in performance of the three streaming video systems, depending on the type of content, bandwidth availability, and the performance of both the provider's and the user's systems.

#### DESCRIPTIONS OF VARIOUS TYPES OF IPTV COMPANIES

IPTV providers may be divided into six categories of Web sites in order to simplify comparison of strategies: major broadcasting networks, local TV stations, large Hollywood film and TV producers, multimedia conglomerates not already covered, independent web video and animation producers, syndicators and licensors of web video. The purpose of this exercise is to look for characteristics that distinguish new and old types of content and who creates and delivers that content to final users. The line between new and old content is not always clear-cut, because the rise of cable television has already created niches for various types of nontraditional video (e.g., the *Simpsons* on the Fox Network or music videos on MTV). Similarly, the discussion looks for evidence regarding new forms of intermediation between content producers and final users that have been made possible by Internet delivery options.

##### Major Broadcasting Networks

The major broadcasting networks use their Web sites primarily as a promotional or advertising device for their network offerings (see Table 14.1). ABC is experimenting with interactivity with its Enhanced TV service, aimed primarily at viewers of sports programming. These Web sites tend to be large and predictable. In the case of NBC, MSNBC (the joint venture between Microsoft and NBC) handles most of the news items, especially those requiring streaming video, whereas the NBC site seems to be headed in the direction of a general web portal. CBS, in contrast, appears to have focused on particular areas like daytime TV, news, and the top 10 lists broadcast on the *Late Show with David Letterman*.

Even though CNN and MTV are cable channels rather than national network providers, they share some of the characteristics of the major networks in this area. CNN is particularly strong in its Internet video offerings and has been something of a leader in converting its news operations from analog to digital technologies. MTV has experimented extensively with interactivity with viewers, offering comments from online chats at the bottom of the TV screen on some shows.

TABLE 14.1  
*Promotional Use of the Web by Television Networks*

<i>Network</i>	<i>Web Site</i>	<i>Menu Items</i>
ABC	www.abc.com	Shows, news, and sports, Enhanced TV
NBC	www.nbc.com www.msnbc.com	Autos, careers, family, health, etc. (more like a web portal than the others)
CBS	www.cbs.com	Daytime, Late Show, news
FOX	www.fox.com	TV, movies, news, sports, business, kids
CNN	www.cnn.com	World, U.S., local, politics, weather, etc.
MTV	www.mtv.com	Shows, music, news, chat, etc.

#### The Web Sites of Local TV Stations

There is a relatively new and rapidly growing market for providing streaming media versions of the local news programming of local network television affiliates. Local stations also produce other kinds of content that they have made available as streaming video on the Internet. One local cable access channel, for example, made 5-minute video interviews of candidates for local political offices available on their Web site so that viewers could see them whenever they chose.

#### The Web Sites of Hollywood Studios

The major studios use their Web sites to advertise new films and TV programs.

Disney appears to have separated its family content (Disney.com) from its adult content (Go.com). Disney's video content fits well with the Flash animation software owned by Macromedia, so unlike many other content producers, Disney puts all of its previews into Flash format. Most of the other studios allow the user to select a video player. The trend among studios to diversify out of TV and movie production into theme parks, tied-in merchandise, and other businesses is clear from Table 14.2. The stream-

TABLE 14.2  
*Use of the Web by Movie Studios*

<i>Studio</i>	<i>Web Site</i>	<i>Menu Items</i>
Disney	www.disney.com www.go.com	Home, vacations, shopping, entertainment, etc.; Go network includes adult material
Time Warner and Warner Brothers	www.timewarner.com www.warnerbrothers.com	Time Warner is the corporate site with links to Warner Brothers and other entertainment businesses
Sony and Sony Pictures Entertainment	www.sony.com www.spe.sony.com	Sony is the corporate site; Sony Pictures incorporates both film and TV operations
MGM	www.mgm.com	Movies, television, trailers, & clips, shop, backlot
Fox Home Entertainment	www.foxhome.com	Store, movies, merchandise, DVD, etc.
DreamWorks SKG	www.dreamworks.com	Movies, video/DVD, music, TV, company
Paramount	www.paramount.com	Motion pictures, television, video/DVD, the studio, chat
Universal Pictures	www.universalstudios.com	Movies, music, theme parks, TV, home video, etc.

ing video on these sites is of variable quality, but is designed in general to approximate in quality the trailers and clips shown on television and in movie theaters. Thus, the movie studios are likely to be early customers of services, like those offered by the Feed Room ([www.thefeedrom.com](http://www.thefeedrom.com)) and iBeam ([www.ibeam.com](http://www.ibeam.com)), that guarantee a higher level of quality of video playback on computers.

Some of the studios are experimenting with IPTV and interactivity. Disney in particular has lots of interactive web content on its site aimed at children. Paramount has a site called [Entertaindom.com](http://Entertaindom.com) with web episodes of *Xena: Warrior Princess*. Sony uses its [Station.com](http://Station.com) to test the market for

IPTV offerings. Still, the overall impression is that the Hollywood studios are too busy making money on feature-length narrative films to do anything truly innovative in IPTV. This may not be true in the future, especially as the potential audience for IPTV content gets into the tens of millions.

Some media conglomerates, like Hachette and Bertelsmann, do not own major film/TV studios, but are involved in a variety of related activities and are strongly involved in print media and multimedia production. Although they are not currently major producers of IPTV content, they are likely to move into this area in the future.

#### Independent Web Video and Animation Producers

Here is where things get interesting. There is major growth in the number and variety of independent video and animation producers who are either trying to distribute their material through conventional channels and advertise their wares on the Internet or who create content solely for the Internet. Table 14.3 lists a few of the more interesting firms that are creating digital video for Internet delivery, but who are also selling material to other actors.

These companies are offering mostly short videos or animations aimed at an audience that finds conventional films and TV unexciting. There is often a sleaze factor to these products that appeals particularly to males in the 18- to 25-year-old cohort (e.g., the *Whip-cream Bikini Bull Riding Challenge* on Wirebreak.com and *Bikini Bandits* on atomfilms.com), but many of the offerings are high quality short films. For example, mediatrip.com had an instant success with its short satirical film, *George Lucas in Love*. The film won a number of international prizes and is currently available for purchase on Amazon.com.

Atom Films, Swankytown, and Urban Entertainment were successful in selling ideas for some of their animations to film/video distributors for TV syndication. TV and cable networks are looking for the next *Simpsons* and they seem to be relying increasingly on IPTV companies to provide forums for their talent searches. Atom Films acknowledges this explicitly in its solicitations for new material. It recruits young filmmakers from famous film schools like UCLA and USC. Atom Films recently negotiated a contract with Volkswagen of America to create 60 short videos over the next six months to appeal to younger car buyers (Volkswagen of America and AtomFilms Announce Major Content and Sponsorship Alliance, 2000).

Two companies in this category have already bit the dust: the Digital Entertainment Network (DEN) and Pop.com. The latter was the result of a partnership between DreamWorks founders Steven Spielberg and Jeffrey Katzenberg and Imagine Entertainment executives Ron Howard and Brian

TABLE 14.3  
*Use of the Web by Independent Video and Animation Producers*

<i>Name</i>	<i>Web Site</i>	<i>Menu Items</i>
Atom Films	www.atomfilms.com	Variety of short subjects, films sold on VHS and DVD
Urban Entertainment	www.urbanentertainment.com	Undercover Brother, and other animations
iFilm	www.ifilm.com	Great variety of short subjects; films solicited
Launch	www.launch.com	Mostly music videos
Quokka Sports	www.quokka.com	Video clips of mountain climbing and other extreme sports
Wirebreak.com	www.wirebreak.com	Short edgy humorous videos: e.g., Backdoor Hollywood
Z.com	www.z.com	Whipped cream bull-riding challenge, bobbing for maggots
Shockwave.com	www.shockwave.com	Animations: e.g., Joe Cartoon, South Park, Regurge, etc.
Swankytown.com	www.swankytown.com	Animations: e.g., Do Humans Exist?
MediaTrip.com	www.mediatrip.com	George Lucas in Love

Grazer. DEN died from profligate spending on the part of its management (Lyman, 2000).

#### **Syndicators and Licensors of Web Video**

Because of the growing demand for IPTV on business Web sites of various sorts, there is emerging a set of businesses that specialize in assembling lists of IPTV content firms and acting as intermediaries between those firms and final customers (see Table 14.4). Some of them add value be-



**TABLE 14.4**  
***Use of the Web by Intermediaries and Production Services Firms***

<i>Name</i>	<i>Web Site</i>	<i>Specialization</i>
ScreamingMedia	www.screamingmedia.com	Sells content of 2,800 online publishers to 1,100 Web sites
iSyndicate	www.isyndicate.com	Repackages IPTV content to suit customer needs in special areas: e.g., health or sports
YellowBrix	www.yellowbrix.com	Topic-specific news for Web sites, personalization services
NewsEdge	www.newsedge.com	Topic-specific news and editorial services for Web sites
Hitplay	www.hitplay.com	Business-to-business broadband content solutions
SeeltFirst	www.seeitfirst.com	Solutions to a variety of web-related problems
Virage	www.virage.com	Video content indexing for Web sites
SkyStream Networks	www.skystream.com	Network services for IPTV delivery to both PCs and TVs

yond brokering deals by providing editorial services, licensing and copy-righting, syndication, and Web site creation/editing tools.

## CONCLUSIONS

Current IPTV content is different from current TV/cable content in being shorter, less risk averse, and potentially more entertaining to younger audi-

ences. This is a function of the demographics of access to broadband services. Younger tech-savvy business people and students at universities with high bandwidth connectivity are clearly the target audience of most of this content.

As broadband access spreads, there may be some trend back in the direction of dominance of existing players in films, broadcasting, and cable television. Programs will be longer, although perhaps not as long as feature films. However, intermediation of talent, syndication services, production, and postproduction services will all be quite differently organized than they were only a few years ago.

There will remain important market niches for the edgy content now seen on the Internet. Because the costs of production will be much lower for small producers than they have been historically, small independent content producers will be able to survive despite the growing participation of large firms in the IPTV marketplace. As a result, there should be greater diversity of offerings in the overall video marketplace not unlike the greater diversity of audio offerings that occurred with the transition from LP records to digital compact discs.

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